262 Sheffield Lane
Glen Ellyn, Il. 60137
April 18, 1988

Mr. Lando Zech
Chairman
U.S.Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Lando:

In May 1987, I made a formal Complaint to the Illinois Commerce Commission against Commonwealth Edison Company, the Chicago based utility. I complained that Commonwealth Edison risks the health and safety of Illinois citizens when operating nuclear power plants in northern Illinois.

During proceedings onducted by the Illinois Commerce Commission, Commonwealth Edison's lawyer acknowledged that Company officials authorize work in a reactor containment vessel with the reactor producing power at Dresden and Quad Cities Stations. The lawyer also acknowledged that Company officials authorize operators to turn off water being pumped into a nuclear reactor by a safety system before the system has finished its job during an emergency. Commonwealth Edison's lawyer moved that my Complaint be dismissed because the Nuclear Regulatory Commission resolved these issues in 1982 and nuclear safety is a matter under federal jurisdiction.

The Illinois Commerce Commission dismissed my Complaint for want of jurisdiction. In a letter dated January 13, 1988, the Chairman of the Commerce Commission suggested that I write to Region III of the Nuclear Regulatory Commission.

On January 29, 1988, I wrote to the Regional Administrator, Nuclear Regulatory Commission, Region III. I cited the hazardous practices at Commonwealth Edison's nuclear power plants. In a follow up letter dated February 24, 1988, I wrote that employees work near a nuclear reactor producing power at the Company's Dresden and Quad Cities Stations, but risking a fuel meltdown by turning off a safety system can occur at any Commonwealth Edison nuclear power plant.

Mr. Charles H. Weil, Investigation and Compliance Specialist, acknowledged my letters. In a letter dated March 31, 1988, Mr. Edward G. Greenman, Director Division of Reactor Projects, replied to my complaints.

Mr. Greenman writes that the Nuclear Regulatory Commission approves of employees working in a reactor containment vessel when the reactor is producing power at Commonwealth Edison's Dresden and Quad Cities Stations. Mr. Greenman writes that when workers are inside the containment vessel with the

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reactor producing power, the containment vessel is always deinerted. But Dresden Unit 2 Technical Specification 3.7.A.5.a. requires that the containment vessel be inerted - oxygen concentration reduced to less than 5% with nitrogen - during reactor power operations. Commonwealth Edison officials therefore violate Operating Licenses and Technical Specifications when they work employees in a reactor containment vessel with the reactor producing power at Dresden and Quad Cities Stations.

Mr. Greenman also writes that the Nuclear Regulatory Commission approves of employees working in a containment vessel with the reactor producing power because Commonwealth Edison officials ensure that the radiation dose limits of 10 CFR Part 20 are not exceeded. But 10 CFR Part 20 reads, in addition to complying with stipulated dose limits, officials shall make every reasonable effort to maintain radiation exposures of nuclear plant employees as low as reasonably achievable. Because of high radiation levels, General Electric engineers designed the boiling water reactors at Dresden and Quad Cities to operate without workers entering the containment vessel during power operations (General Electric Manuals NEDO-10128 and NEDO-10260). Commonwealth Edison officials therefore violate 10 CFR Part 20 and plant Operating Licenses, when they expose workers to hazardous radiation by sending them into a reactor containment vessel with the reactor producing power at Dresden and Quad Cities Stations.

Mr. Greenman writes that the Nuclear Regulatory Commission considers it reasonable to turn off a nuclear plant safety system in an emergency. But Federal Regulations require a nuclear plant safety system to pump water into a nuclear reactor as long as the abnormal condition which activated the system, persists. Commonwealth Edison's Policy permits operators to turn off water being pumped into a nuclear reactor during an emergency before the safety system has finished its job. Turning off water being pumped into a nuclear reactor during an emergency, can cause a nuclear fuel meltdown. Commonwealth Edison's Policy can cause a nuclear fuel meltdown, release of highly radioactive fission products, and exposure of plant personnel and people nearby to hazardous radiation. Mr. Greenman writes that the Nuclear Regulatory Commission affirms this Policy - a Policy that can cause an accident like Three Mile Island.

Regarding the Three Mile Island accident, Victor Stello writes:
".. had the operators allowed the emergency core cooling system to perform its intended function, damage to the core would most likely have been prevented." (FORWARD to NUREG-0600, fifth paragraph)

In July, 1979, Mr. Stello commissioned a Special Review Group to review the lessons learned from the Three Mile Island accident. The Special Review Group found if operators had adhered to Technical Specifications, the high pressure injection system would not have been throttled with the reactor coolant system at low pressure conditions. (NUREG-0616, pgs 87, 86)

Three official investigations confirm that operating Three Mile Island as required by the Operating License and Technical Specifications, would ha vented damage to the nuclear reactor:
(1) The President's Commission found that reactor core damage would have been prevented if the high pressure injection system had not been throttled. (Kemeny Commission Finding #4, pg 28)
(2) Calculations by the Special Inquiry Group show that use of the high pressure injection system would have prevented overheating of the fuel and release of radioactive material. (Rogovin Vol II Part 2, pgh D.2.b, pgs 558,561)
(3) The Special Investigation by the Senate Subcommittee on Nuclear Regulation found the cause of severe damage to the reactor core was the inappropriate overriding of automatic safety equipment by plant operators and managers. (Hart Report Chapter 2, Findings and Conclusions, #2, pg 9)

The Nuclear Regulatory Commission issued a new Regulation on June 1, 1983. This Regulation, 10 CFR 50.54 (x) and (y), authorizes a Senior Operator in a nuclear plant to deviate from technical specifications in an emergency. Technical specifications prescribe settings for nuclear plant safety systems. Settings for automatic protective systems - emergency core cooling systems for example - are defined so that action of a safety system will correct an abnormal condition before fuel design limits are exceeded. Technical Specifications require an automatic safety system to operate as long as the abnormal condition which threatens the nuclear fuel exists in the plant. Following technical specifications during an emergency leads to plant safety. Safety will not require a Senior Operator to deviate from technical specifications. Mr. Stello believes that following technical specifications is the safe way to operate a nuclear plant 1.

To protect public health and safety from the hazards of nuclear radiation when nuclear energy is producing power, I urge you to cancel Federal Regulation 10 CFR 50.54 paragraphs (x) and (y). Enclosed is a draft to replace these paragraphs.

Sincerely yours,

Cy Young

Charles Young

1 On December 31, 1984, the Office of Nuclear Reactor Regulation established a Technical Specification Improvement Project to consider the entire subject of Technical Specifications and provide recommendations for improvement. The Group concluded that problems identified with Technical Specifications do not pose an acute safety problem for operating power reactors. Mr. Stello sent the Report to the Commissioners in a letter dated January 13, 1986. In his letter, Mr. Stello endorsed the principal finding of the Group. The Group's principle finding is that there are no acute safety concerns associated with Technical Specifications which support a mandatory program of changes to the Technical Specifications of operating reactors.

Enclosure

Copy to:

Ms. Mary Bushnell
Chairman
Illinois Commerce Commission

DRAFT - Suggested change to Part 50, Section 50.54, Title 10, Code of Federal Regulations.

"50.54 Conditions of Licenses.

(x) The Atomic Energy Act of 1954 stipulates that a licensee shall operate a commercial nuclear power plant in accordance with technical specifications. Technical specifications define the specific characteristics of a nuclear power plant which ensure that fuel design limits are not exceeded during normal operations and emergencies. By review of a nuclear power plant's safety analysis and technical specifications, the Nuclear Regulatory Commission determines that utilization of special nuclear material will be in accord with the common defense and security and will provide protection to the health and safety of the public. To prevent fuel damage and protect public health and safety from the hazards of nuclear radiation, a licensee shall follow technical specifications when operating a commercial nuclear power plant.

(y) The Chief Executive Officer of a public utility or other organization licensed to operate a commercial nuclear power plant shall establish policy for operating the plant. The Chief Executive Officer shall direct that the nuclear power plant be operated in accordance with the Operating License and Techrical Specifications."

References:

(1) Atomic Energy Act of 1954, Section 2232

(2) Code of Federal Regulations, Title 10, Part 50 Sections 50.34, 50.36, 50.46, 50.57, and Criterion 10, APPENDIX A.

262 Sheffield Lane
Glen Ellyn, IL 60137
February 24, 1988

Mr. Charles H. Weil
Investigation and Compliance Specialist
U.S. Nuclear Regulatory Commission, Region III
Post Office Box 2027
Glen Ellyn, Illinois 60138-2027

Dear Mr. Weil:

My letter of January 29, 1988, describes two safety problems at Commonwealth Edison nuclear power plants. The first - working employees near a nuclear reactor producing power - occurs at Dresden and Quad Cities Stations. Risking a fuel meltdown by turning off a safety system, can occur at any Commonwealth Edison nuclear power plant.

The Energy Reorganization Act of 1974, places responsibility for safety on officers of companies operating nuclear power plants. Section 206 of the Act reads that an officer of a firm operating a nuclear plant who learns of a plant defect which could create a substantial safety hazard, shall immediately notify the Nuclear Regulatory Commission.

A Commonwealth Edison Company Policy authorizes operators to turn off a safety system in an emergency if core cooling is adequate. The Policy states that core cooling is adequate if reactor coolant system pressures, temperatures, and levels are stable. But stable reactor coolant system pressures, temperatures and levels do not mean that core cooling is adequate. With reactor coolant system pressure stable but low, temperature stable but high, and level stable but low, the reactor's nuclear fuel can be burning up.

An operator at any Commonwealth Edison nuclear power plant can cause serious damage by following instructions issued by Company officers. Turning off water being pumped into a nuclear reactor by a safety system before the system has finished its job, can cause the meltdown of a reactor's nuclear fuel.

A copy of the defective Policy is enclosed. I have underlined one of the defects in the Policy.

Very respectfully,

Charles Young

Enclosure

Copy to:

Mary B. Bushnell, Chairman
Illinois Commerce Commission

Illinois Department of Nuclear Safety

Lando Zech, Chairman
U.S. Nuclear Regulatory Commission

Commonwealth Edison Company

VICE PRESIDENT'S INSTRUCTION NO. 1-0-17

SUBJECT: Company Policy Regarding Safe Operations and Adherence to Nuclear Procedures and Technical Specifications

Effective: August 18, 1986

Cancels: V.P. Instn 1-0-17 (5-23-83)

This Instruction reaffirms Company policy regarding adherence to nuclear procedures and technical specifications.

The primary concern of the Company with respect to the operation of its nuclear generating plants is to ensure the health and safety of the public as well as station personnel. All personnel within the Company share this responsibility. In particular, it is the primary responsibility of the Station Shift Engineer to maintain safe plant operation since it is he who has direct control over all plant operations during his shift.

In order to achieve this safety goal, plant operation is to be within the boundaries specified in our technical specifications and in adherence to procedures and operating orders. Systems which could affect the public health and safety (including emergency core cooling system, rad-waste, etc.) are to remain operable as prescribed in the technical specifications.

It is recognized that circumstances may arise which were not foreseen in the preparation of technical specifications. For example, a combination of events which were analyzed individually may, taken together, produce results which were not expected or analyzed during reviews leading to the technical specifications. In these rare, unforeseen circumstances literal adherence to the technical specifications may cause, rather than prevent, problems. If such circumstances should arise, prudence may require operation outside of the technical specifications, procedures, or operating orders. This should be done only when necessary to solve an immediate problem and only after careful consideration and approval by the Station Shift Engineer or, if there is insufficient time to contact him, the licensed Senior Reactor Operator immediately available in order to prevent (1) injury to the public or Company personnel (2) releases off-site above technical specification limits, or (3) damage to equipment, if such damage is tied to a possible adverse effect on public health and safety. This operation should only be done when no action consistent with license conditions and technical specifications is immediately apparent which can provide adequate or equivalent protection.

Further, it may be necessary upon occasion to temporarily withdraw a system or systems from operation by placing it in a manual or pull-to-lock mode. This should be done only when conditions are "stable and under control", or when it is apparent that continued operation would aggravate or worsen the plant condition. The conditions of "stable and under control" are considered to exist (1) if the radiation levels and the pressure and temperature in the primary containment are stable, and (2) if there is adequate core cooling as indicated by stable reactor coolant system pressures, temperatures and levels. In all instances such action should be taken only after careful consideration, and it must be reviewed and approved by the licensed Senior Reactor Operator immediately available. It is not expected that such operations will be conducted for prolonged periods.

Ill. C. C. Docket 87-0228
Exhibit A

Whenever a system is withdrawn from operation as outlined, continuing surveillance of the relevant parameters must be maintained by a licensed Reactor Operator to assure the safe operation of the plant until the system can be restored to normal operability or until it is no longer needed, as prescribed by the technical specifications.

In all cases noted above, when the technical specification boundaries are exceeded or when a system is withdrawn from operation:

- The Station Shift Engineer shall be notified immediately.
- The Shift Technical Advisor/Station Control Room Engineer shall be consulted to determine whether immediate shutdown, orderly power reduction, or other course of action is appropriate.
- The Station Manager or his designate shall be notified who in turn shall notify the Nuclear Duty Officer in accordance with established procedures.
- The NRC Operations Center shall be notified by telephone. When time permits, the notification must be made before the protective action is taken; otherwise, the notification must be made as soon as possible thereafter.
- A report shall be promptly made to the Division Vice President - Nuclear Stations.
- A plant shutdown, immediate or by power reduction, shall be commenced unless prolonged operation under the circumstances is concurred in by the NRC in the case of operating outside the technical specifications. In other cases the Station Manager or his designate may authorize prolonged operation if appropriate.

All station personnel shall be informed of this policy and it shall be included in our training program.

Cordell Reed
Vice President